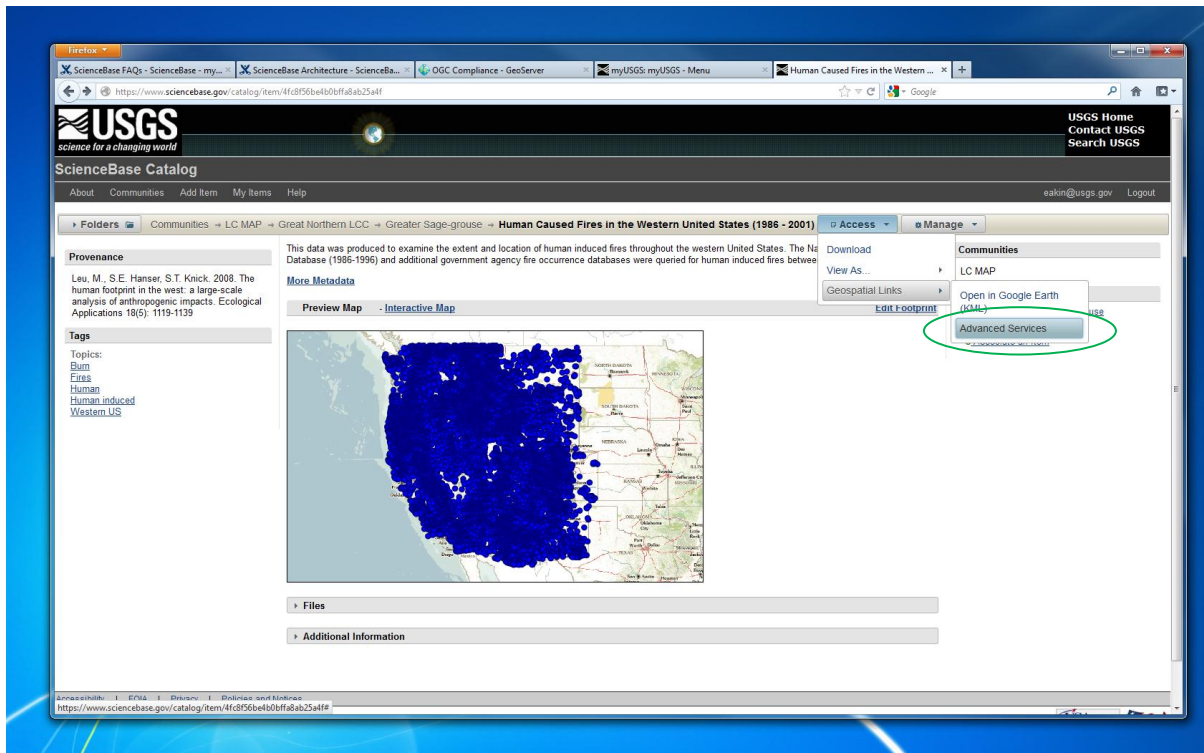


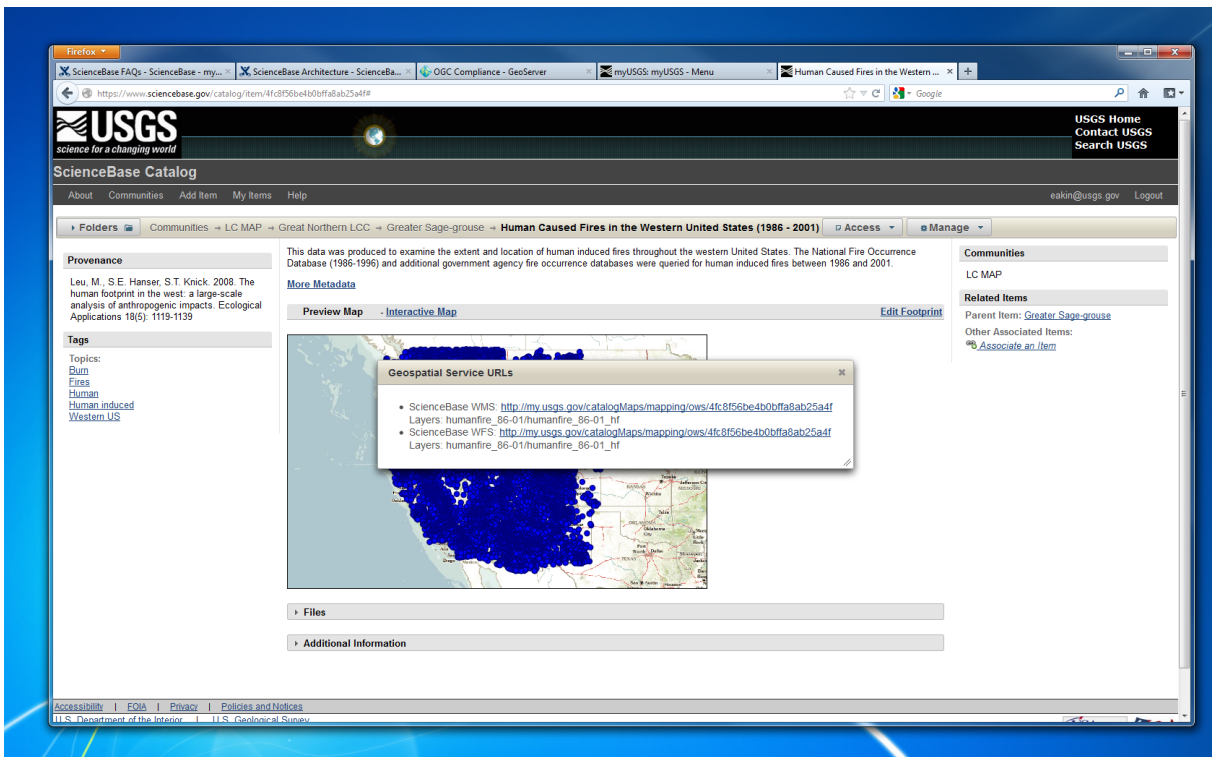
Advanced Services.

Web mapping service (WMS), Web feature service (WFS) and KML services are automatically generated for shapefiles uploaded to LC MAP. To use the KML files see page 23.

To use the WMS and WFS services, find the **Advanced Services** option under **Access>Geospatial Links**.



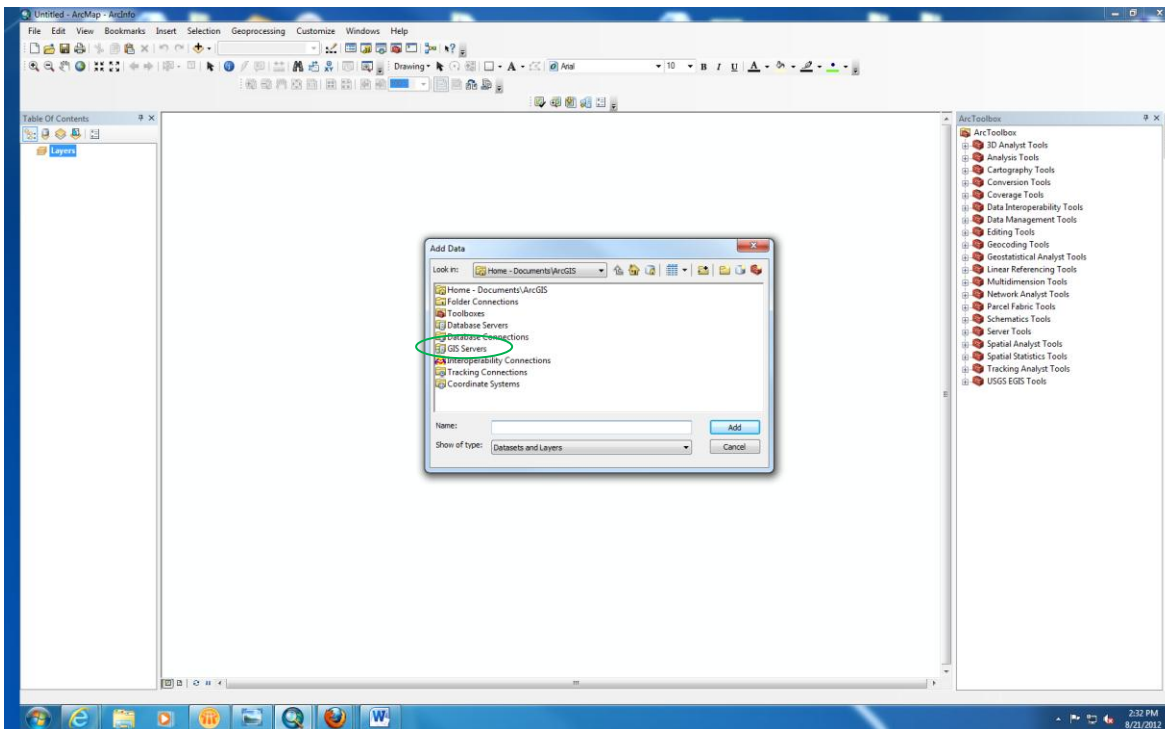
URLs for WMS and WFS are provided in a pop-up box:



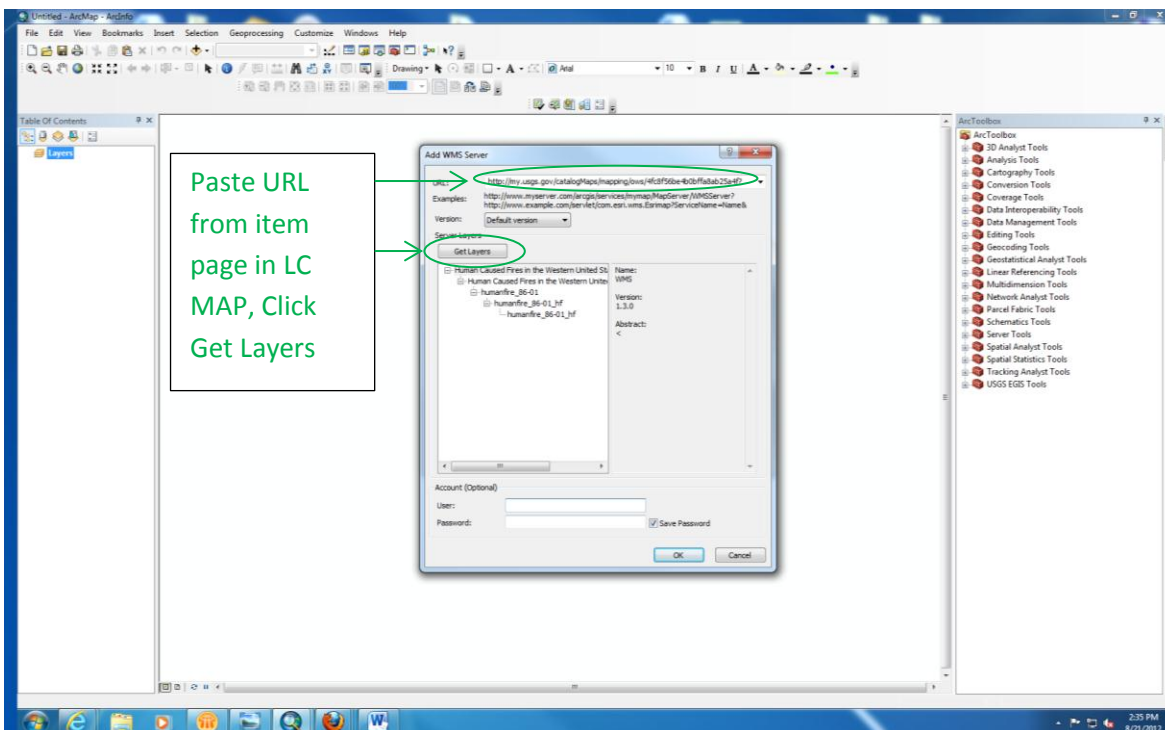


Web Mapping Service:

Copy the URL from the dialog box. In ArcGIS 10, from **Add Data** drop down menu, double click **GIS Servers**:

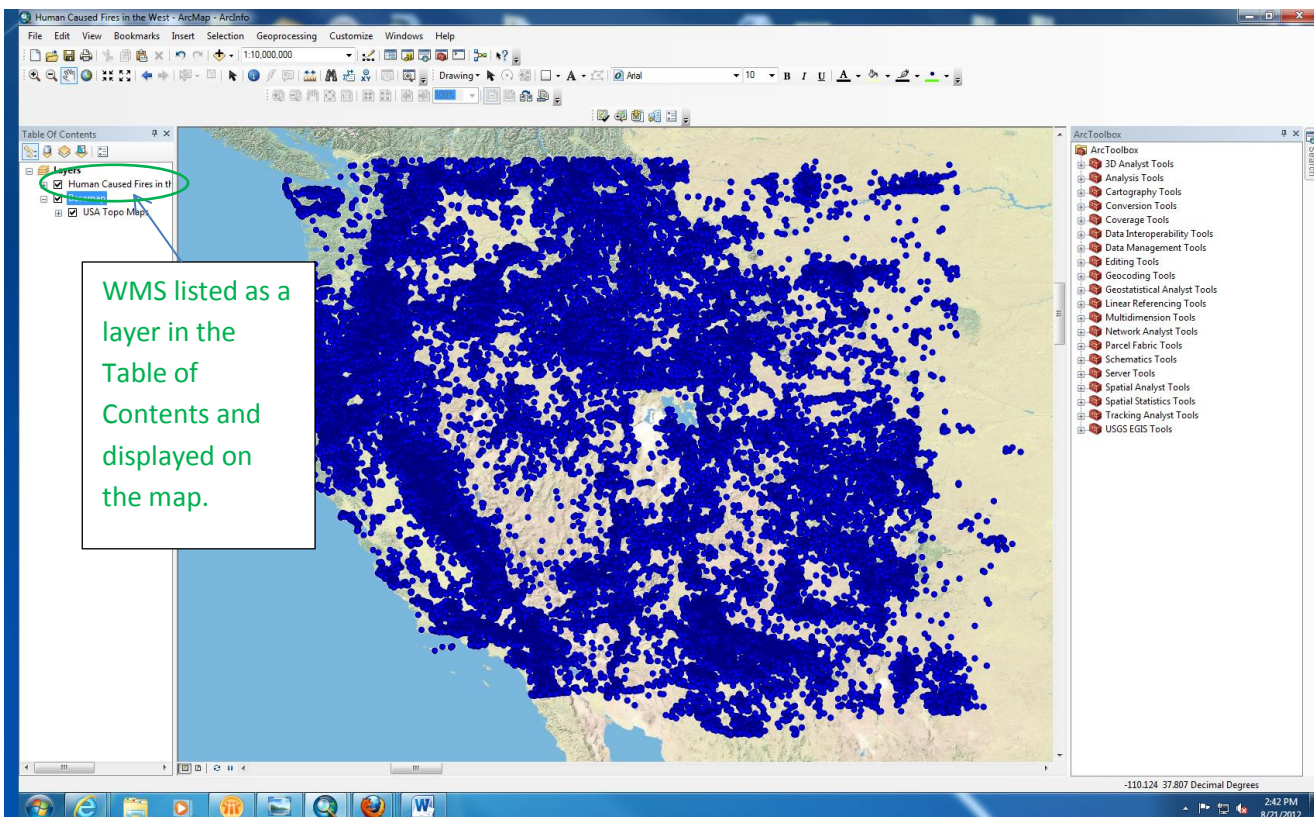
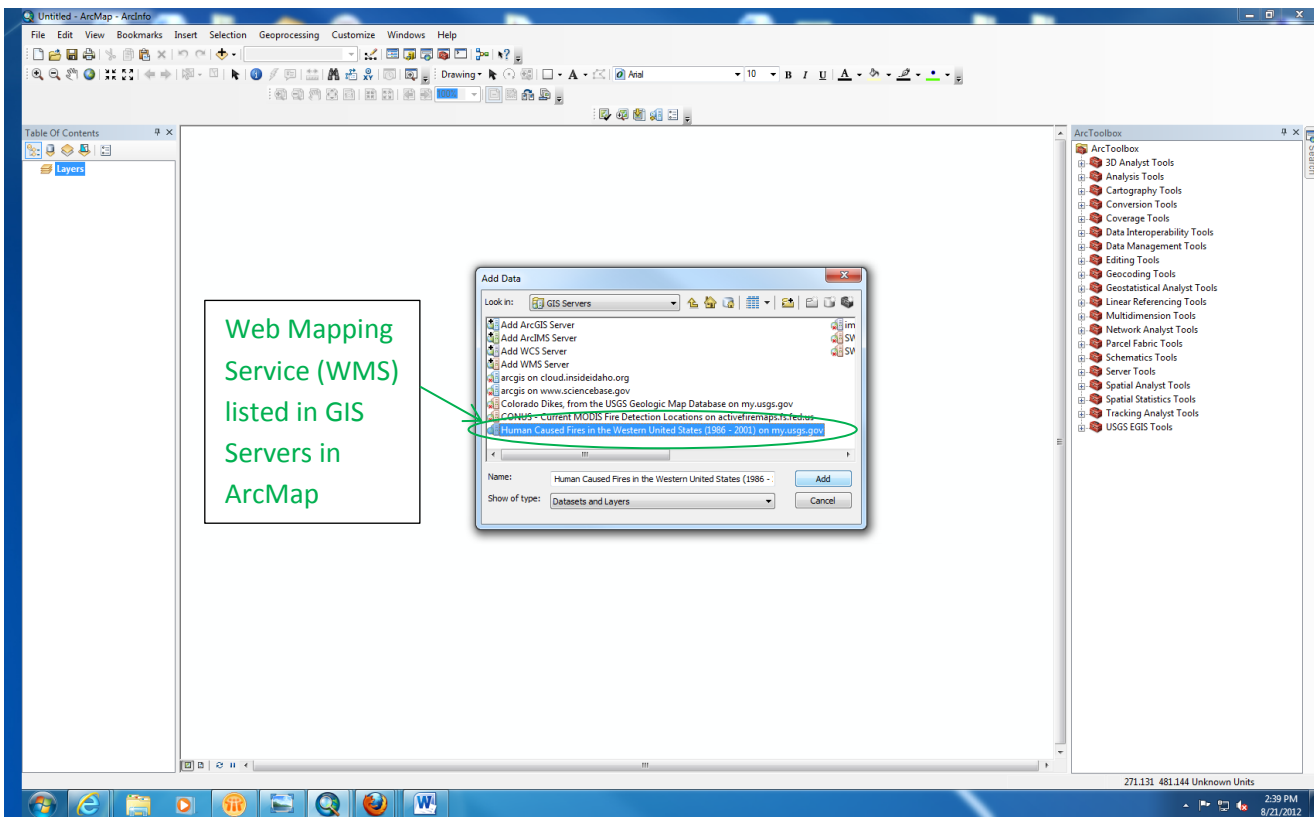


Double click **Add WMS Server**. In the dialog box, paste the URL copied from LC MAP:



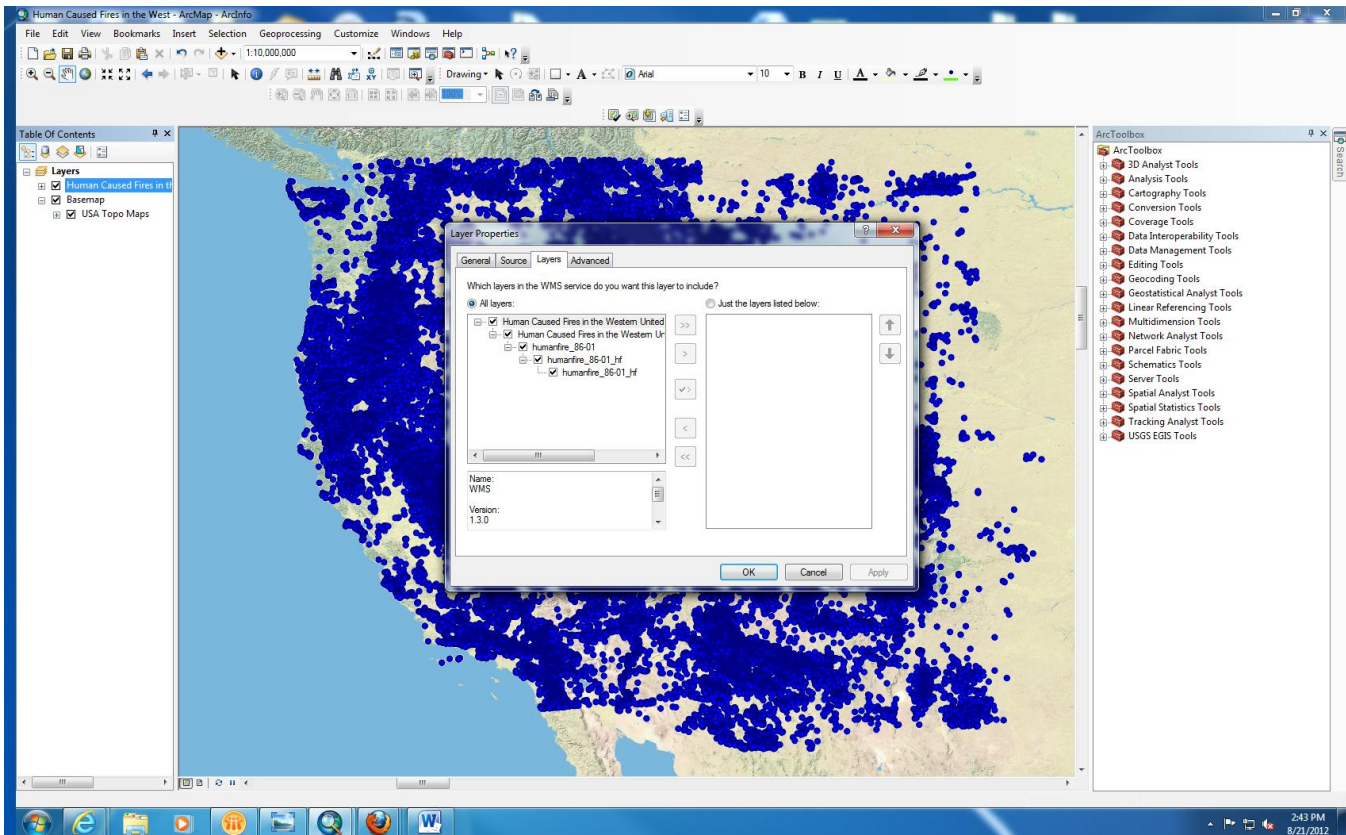


Click **Get Layers** and **OK**. WMS layer will now be displayed in the Add Data list under GIS Servers, click **Add** to put it on your map.



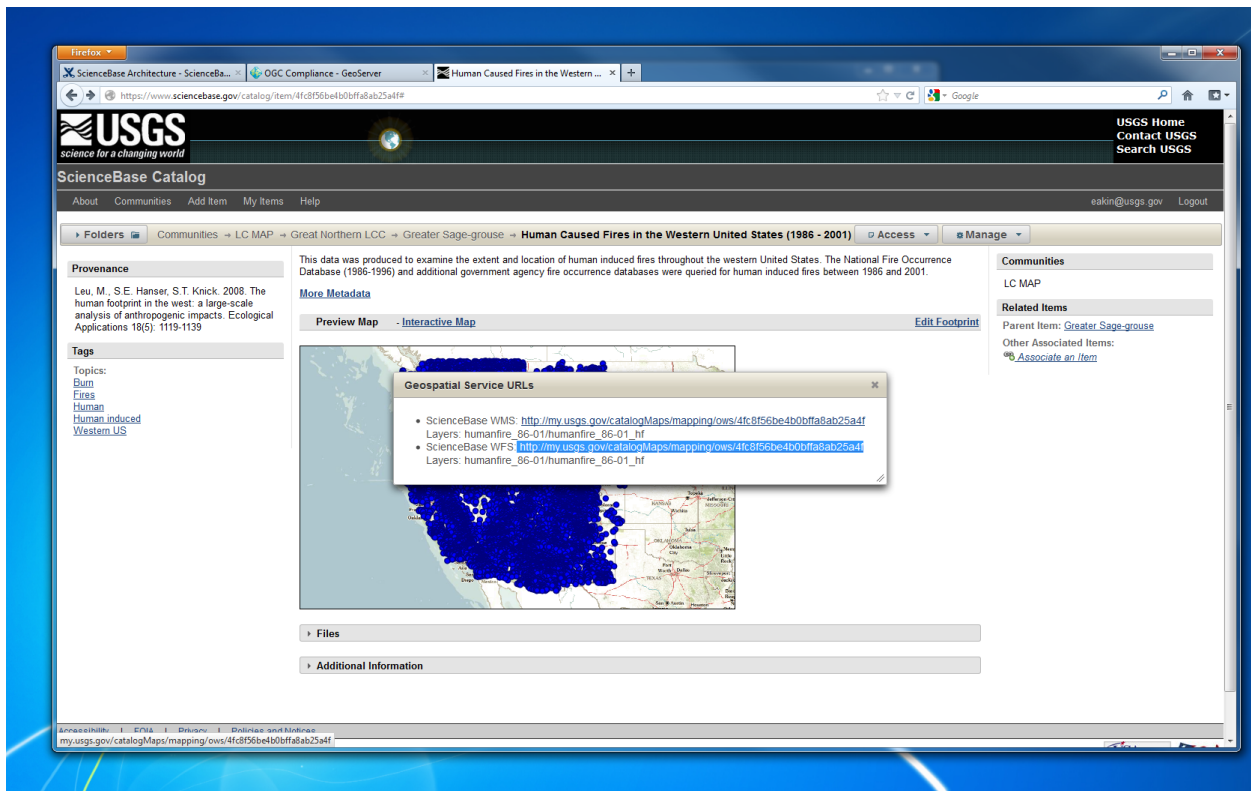


Layers may be turned on and off by right clicking the layer name in the Table of Contents, click **Properties** and ticking boxes under the **Layers** tab.



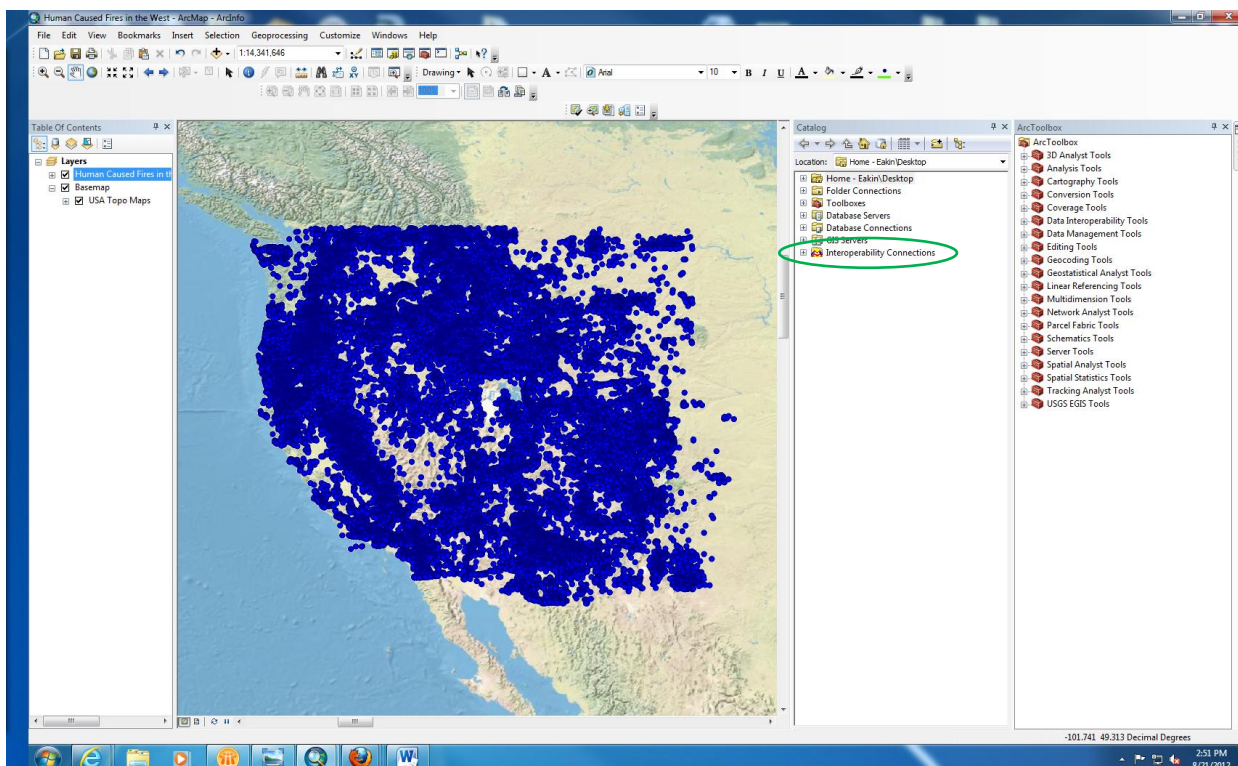


Web Feature Service access from ScienceBase:

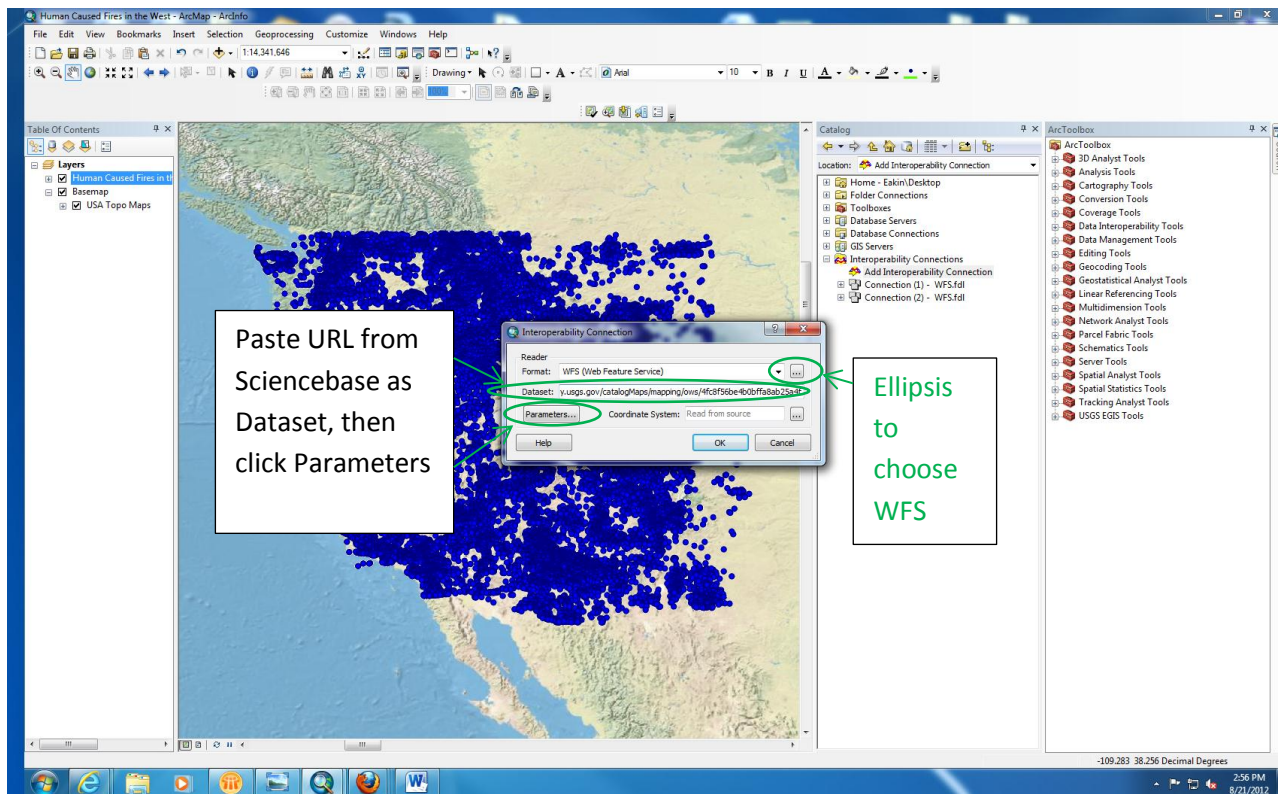


Copy the URL from the item's page under **Access>Geospatial Links> Advanced Services**.

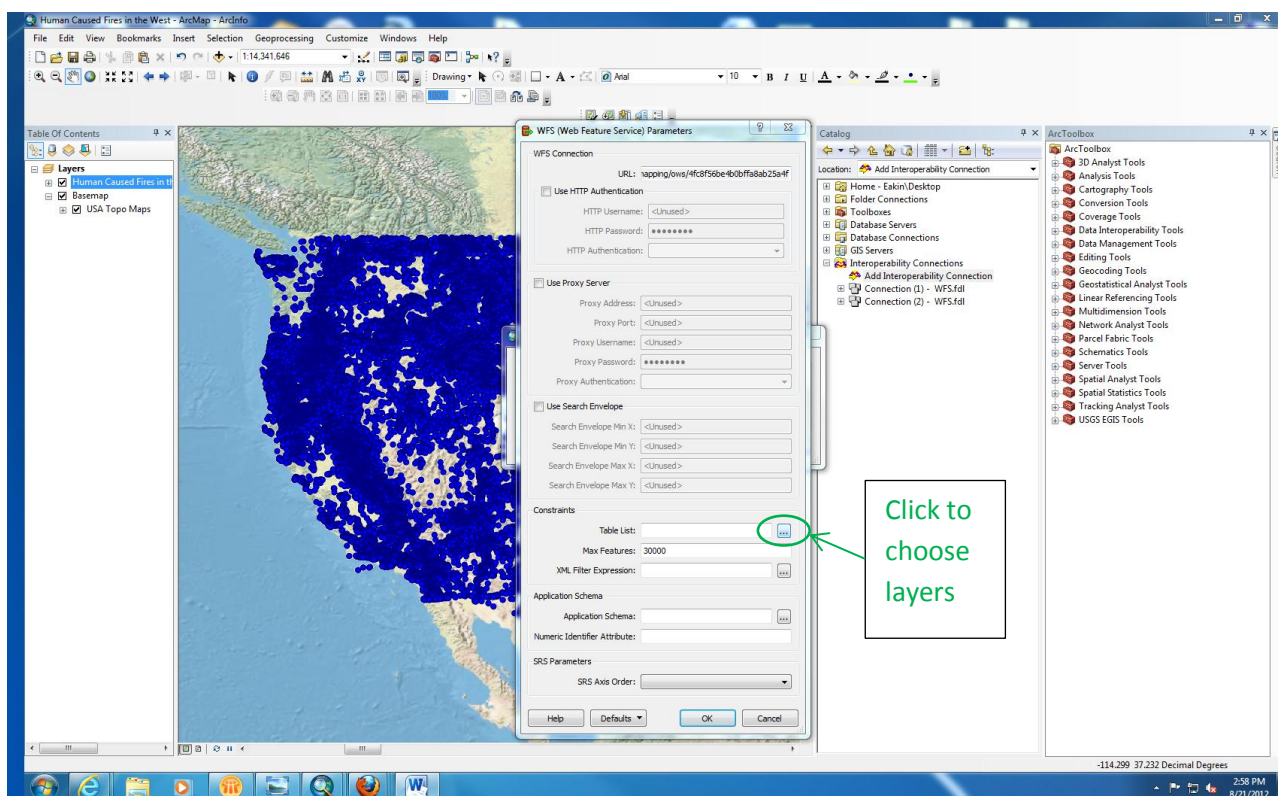
Open Arc Catalog in ArcGIS 10. Double click **Interoperability Connections**.



Double click **Add Interoperability Connection**. In the dialog box, click the ellipsis (...) and select Web Feature Service. Paste the copied URL from ScienceBase into the Dataset field:

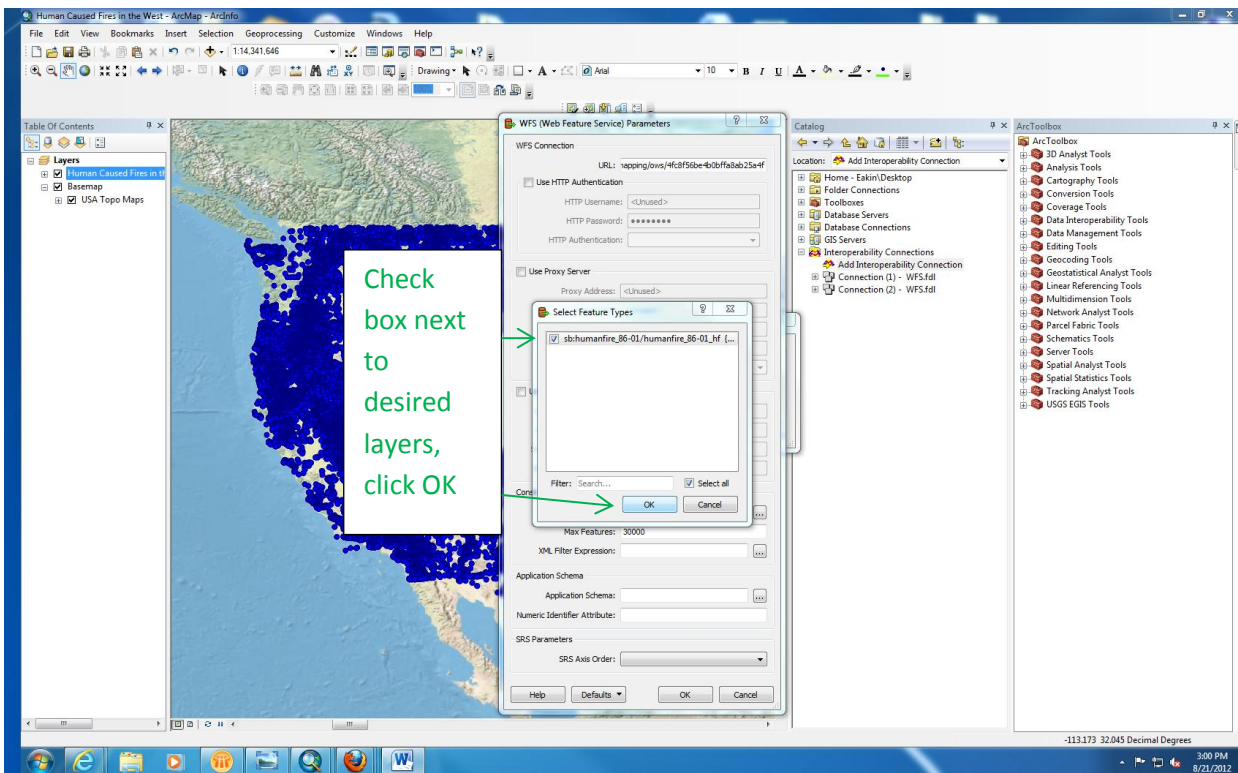


Click **Parameters**. Under Constraints, click the ellipsis (...) next to the field Table List:

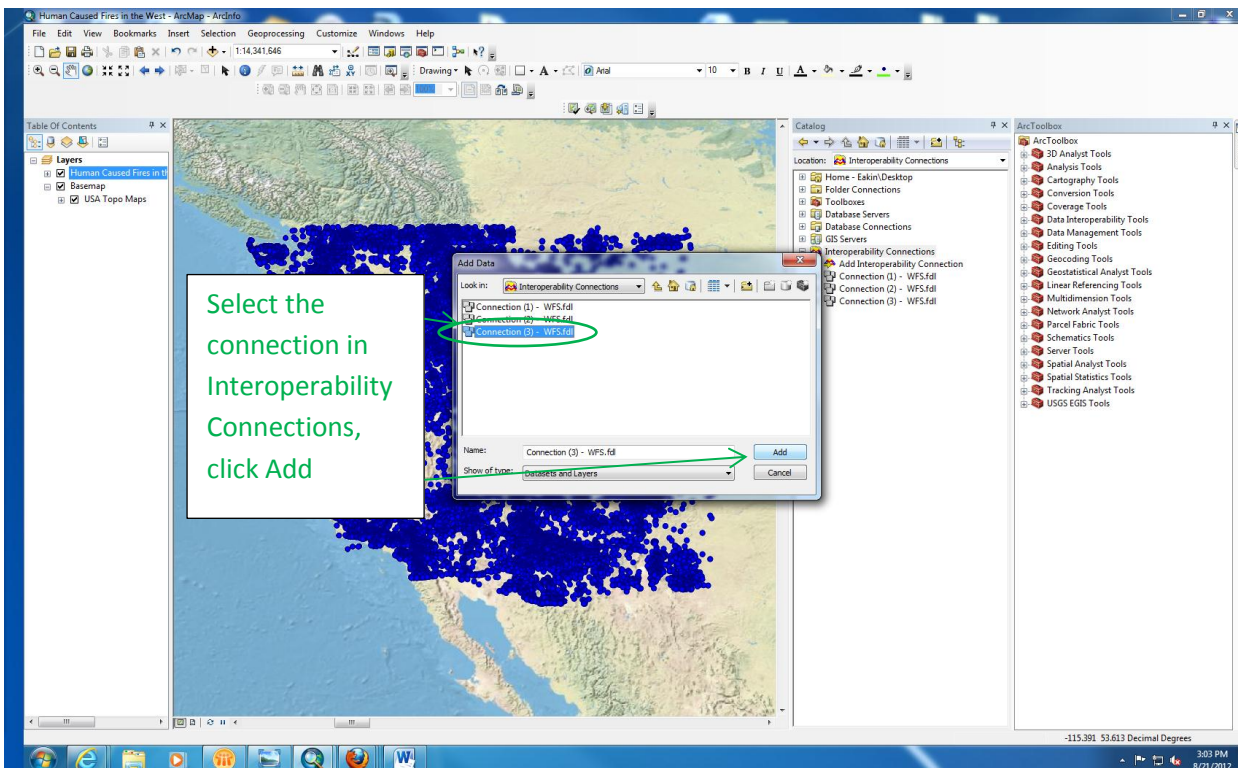


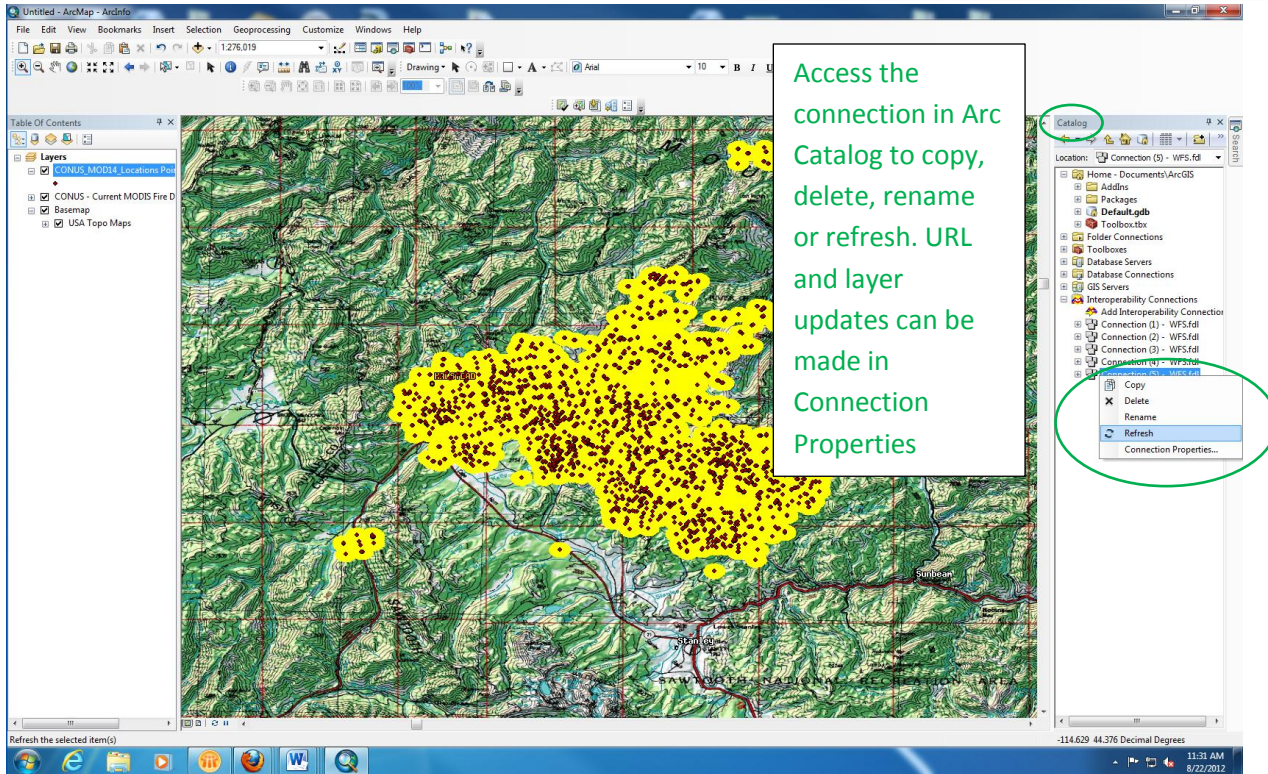


ArcMap will display a Loading Status bar, then another dialog box listing the features available to select from the WFS. Tick the box(es) next to those you want to access. Click OK on all three open dialog boxes.

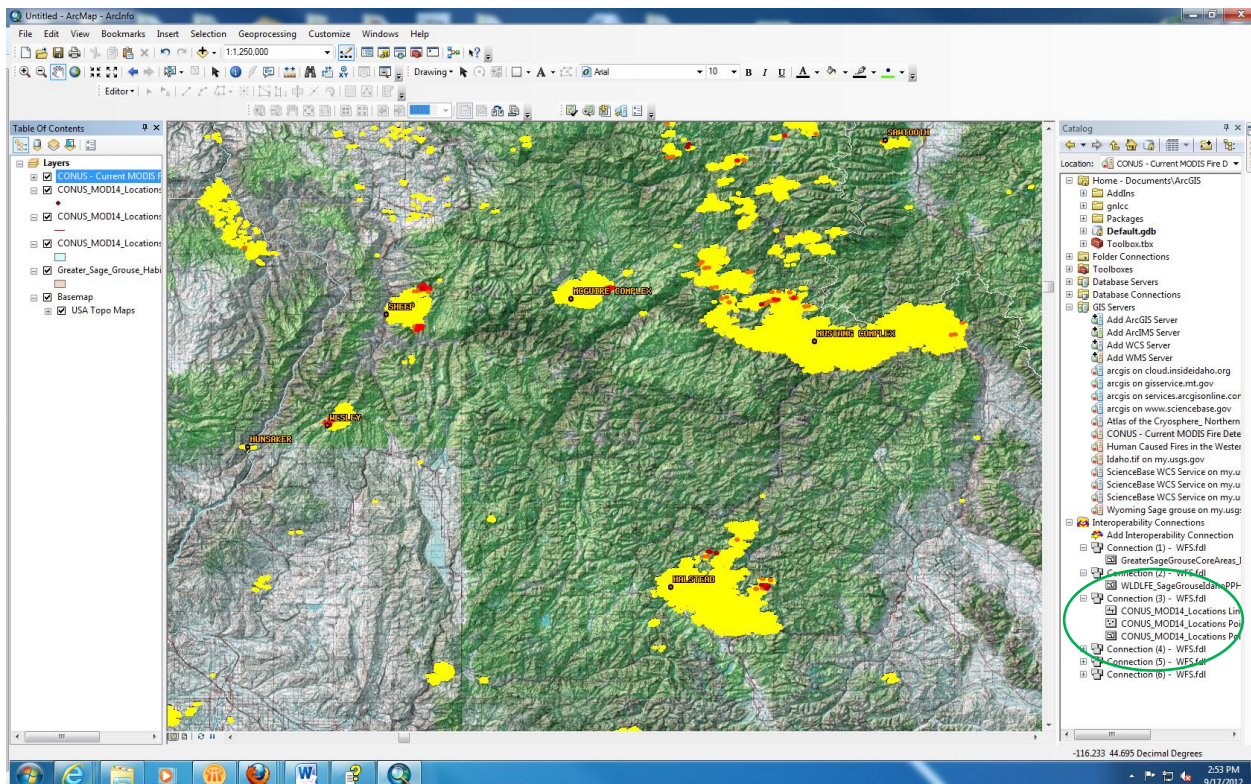


The WFS will be available in **Add Data> Interoperability Connections**. Select the feature service to add it to your map:





Right click the WFS (listed as Connection) in Arc Catalog to **Refresh** data. Access more layers through **Connection Properties**. **Rename**, **Copy** or **Delete** options are also available by right clicking the layer name in Catalog. Clicking on the plus sign in front of the connection in the Catalog tree provides the name of the WFS:

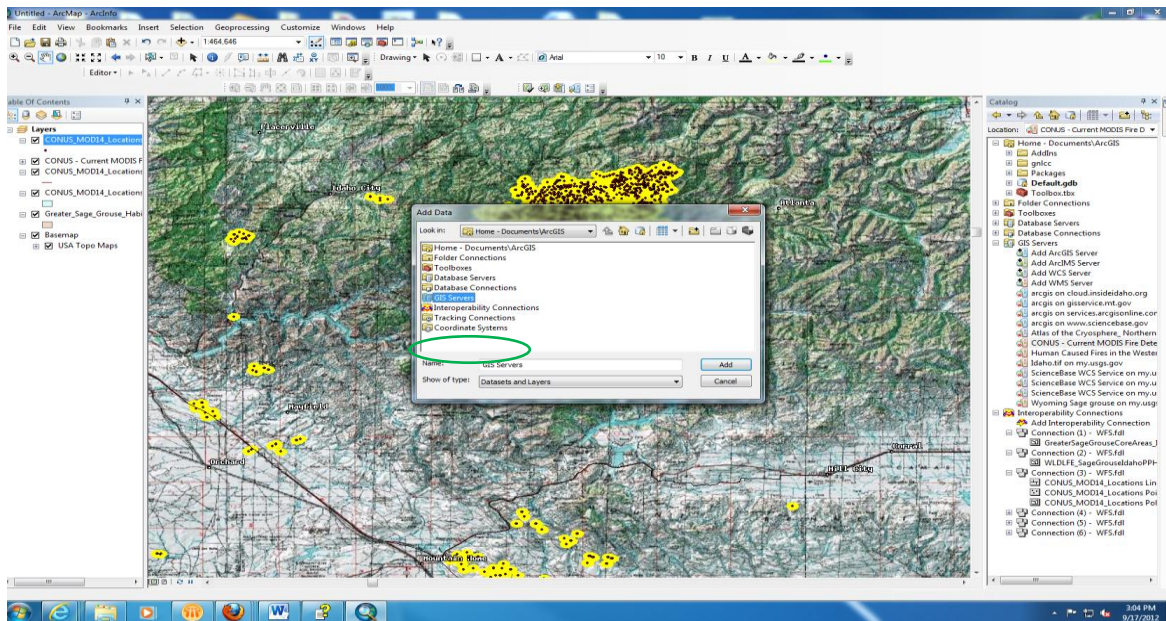




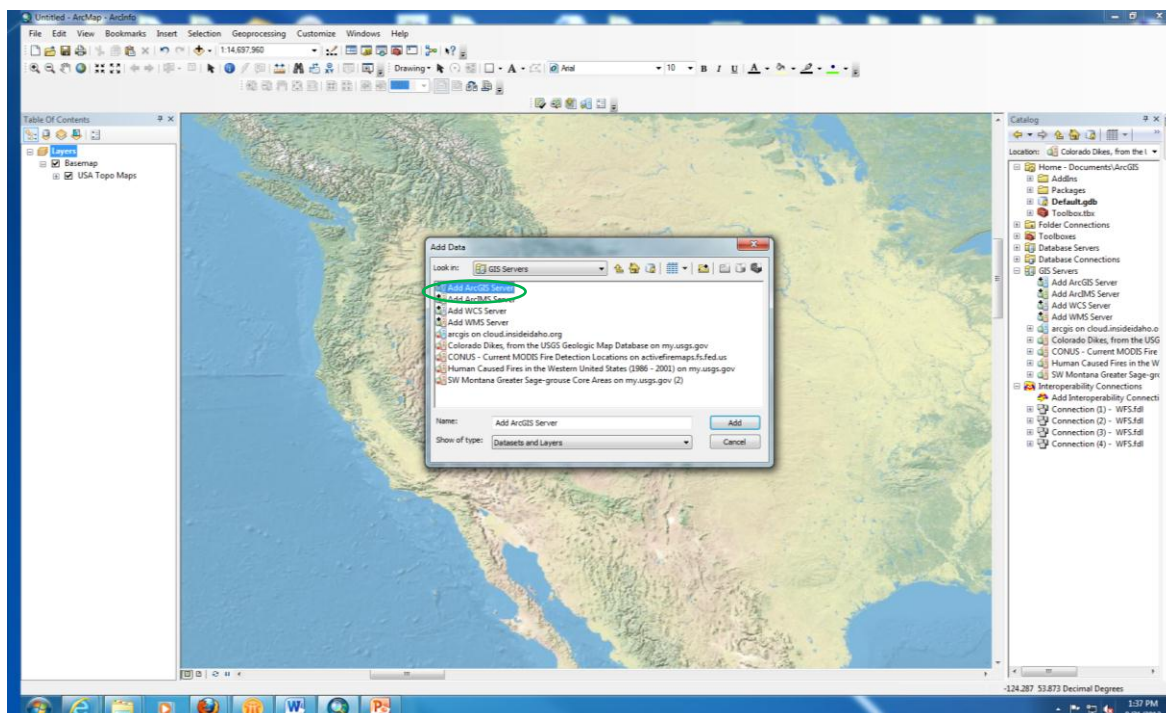
GIS Share:

LC MAP provides a GIS analysis platform called GIS Share. Data layers and map packages can be accessed through a URL from any web browser and edited locally by the user. If you would like your datasets to be accessible through the online service, please contact USGS brownd@usgs.gov. Once your files have been placed on the GIS Share server, register ScienceBase as a GIS server in ArcMap through the following steps:

Double click **GIS Servers** from the **Add Data** menu:

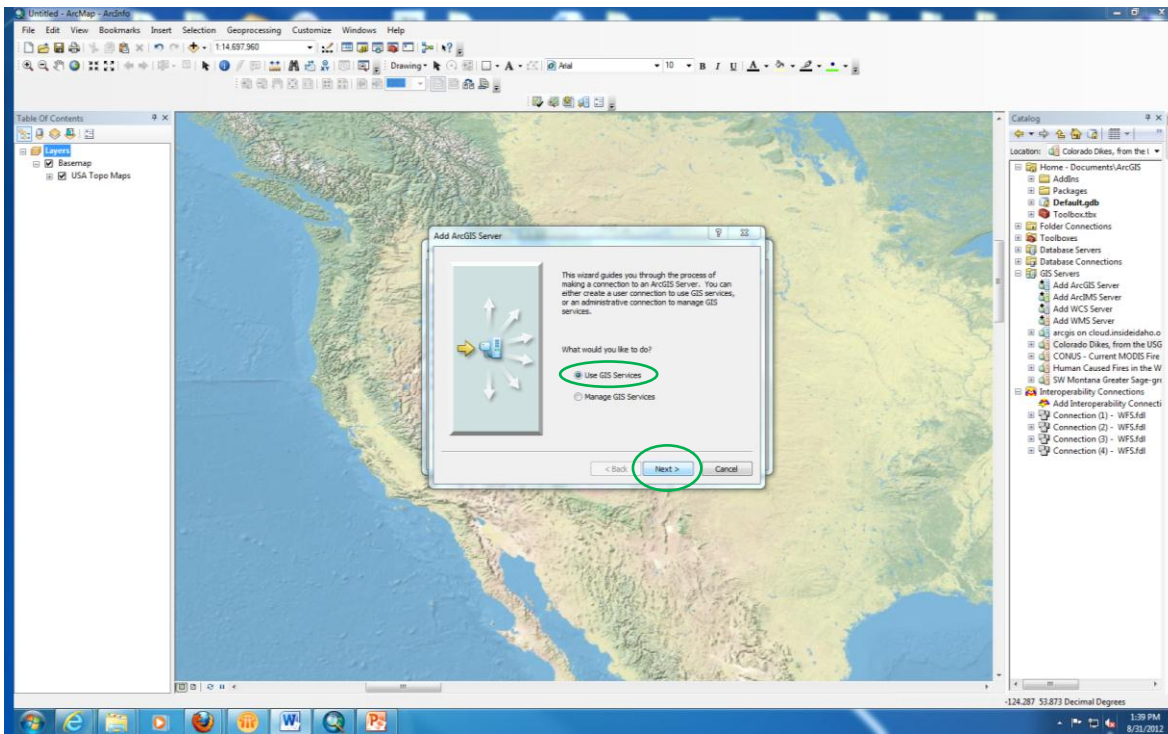


Double click **Add ArcGIS Server**

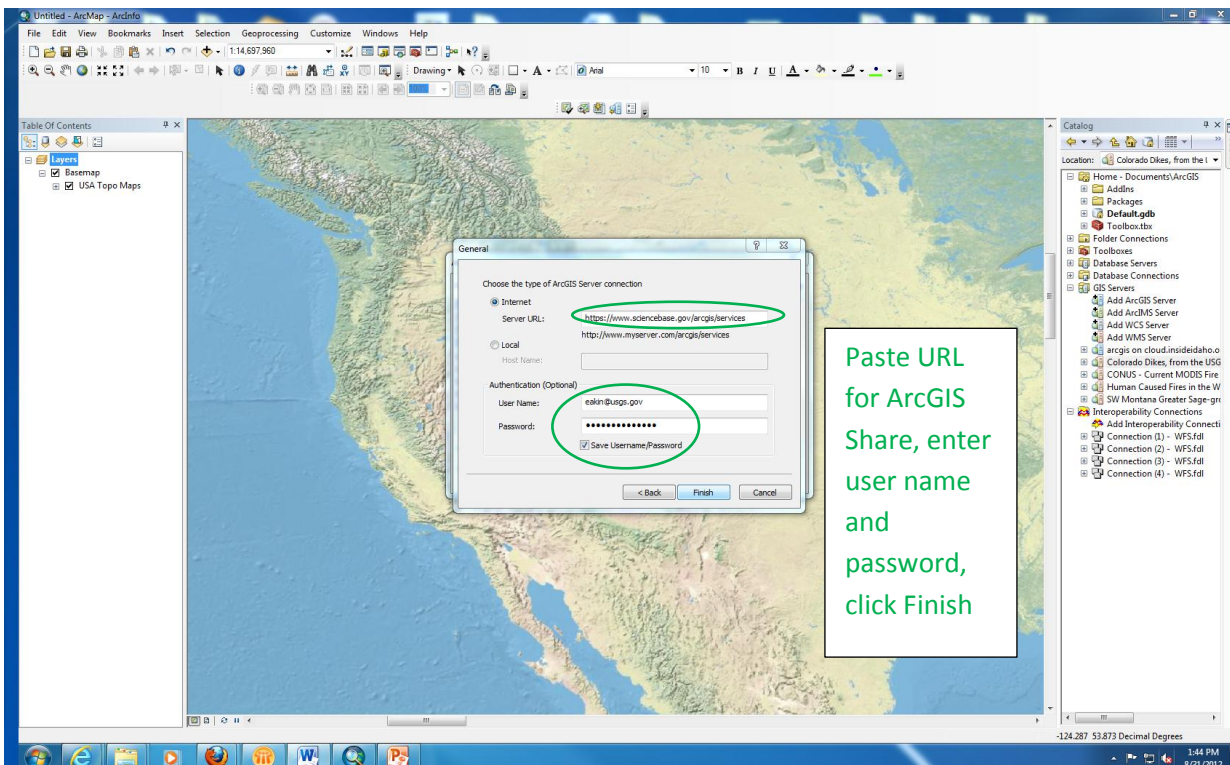




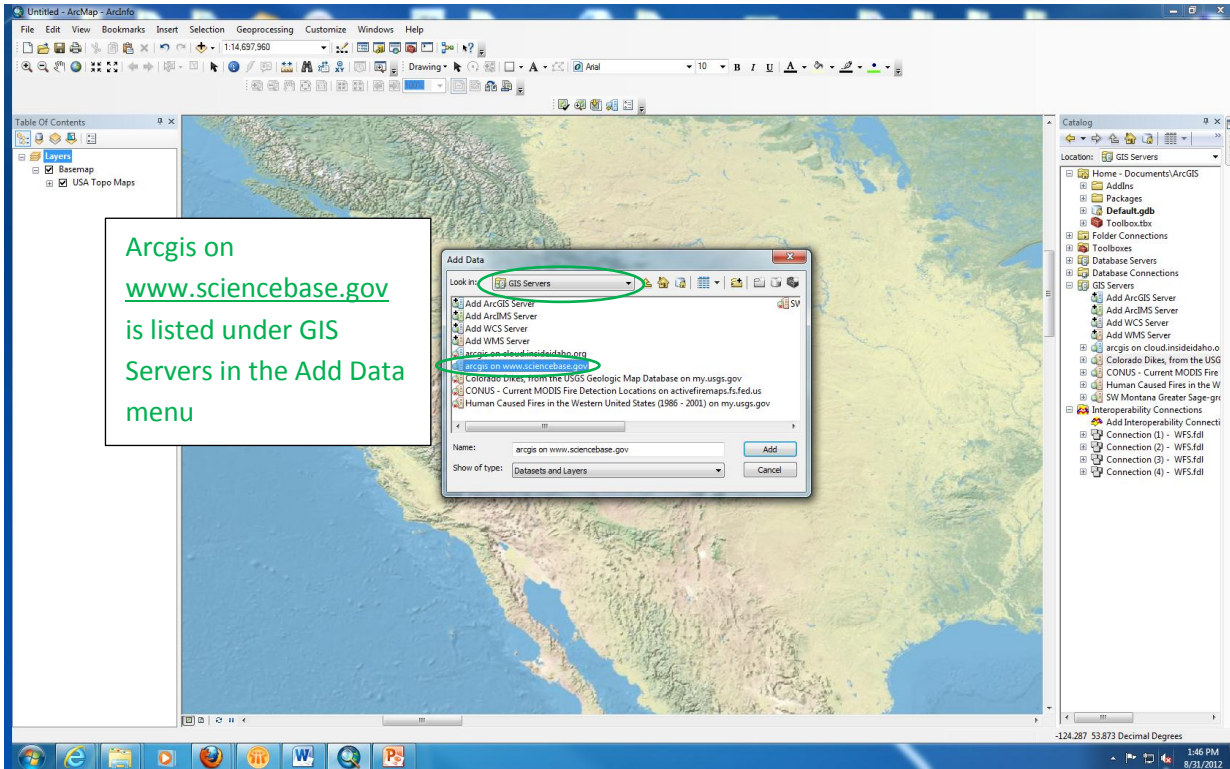
Installation wizard asks a series of questions. Choose the radio button next to Use GIS Services, click Next.



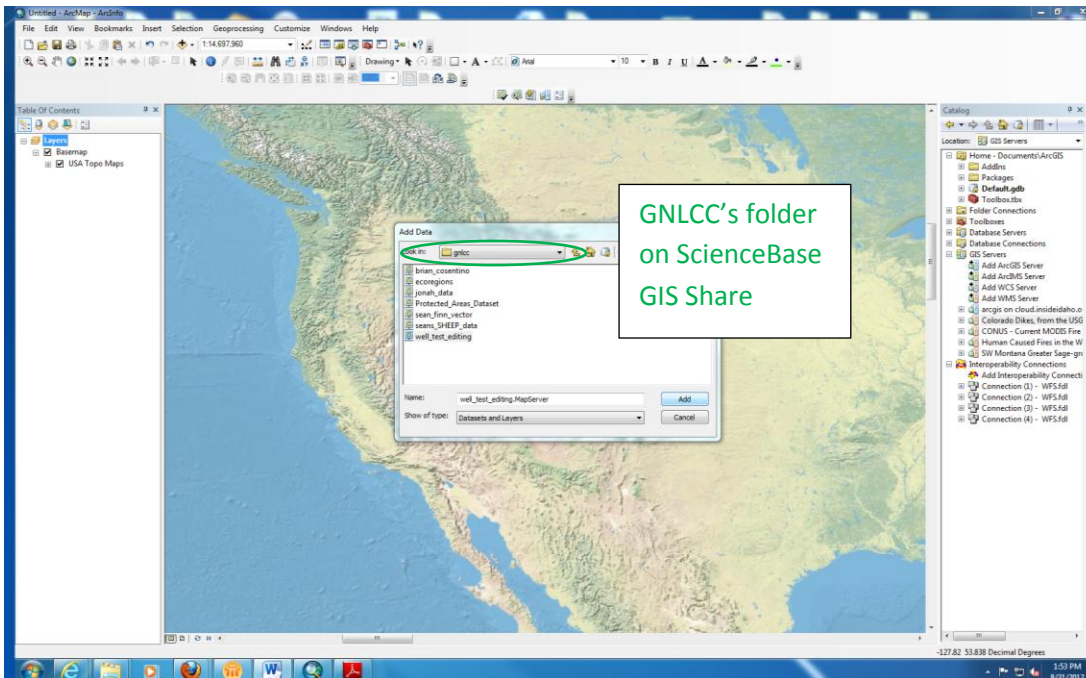
In the next dialog box, enter <https://www.sciencebase.gov/arcgis/services> for the internet server URL and type in your user name and password for LC MAP. Click Finish.



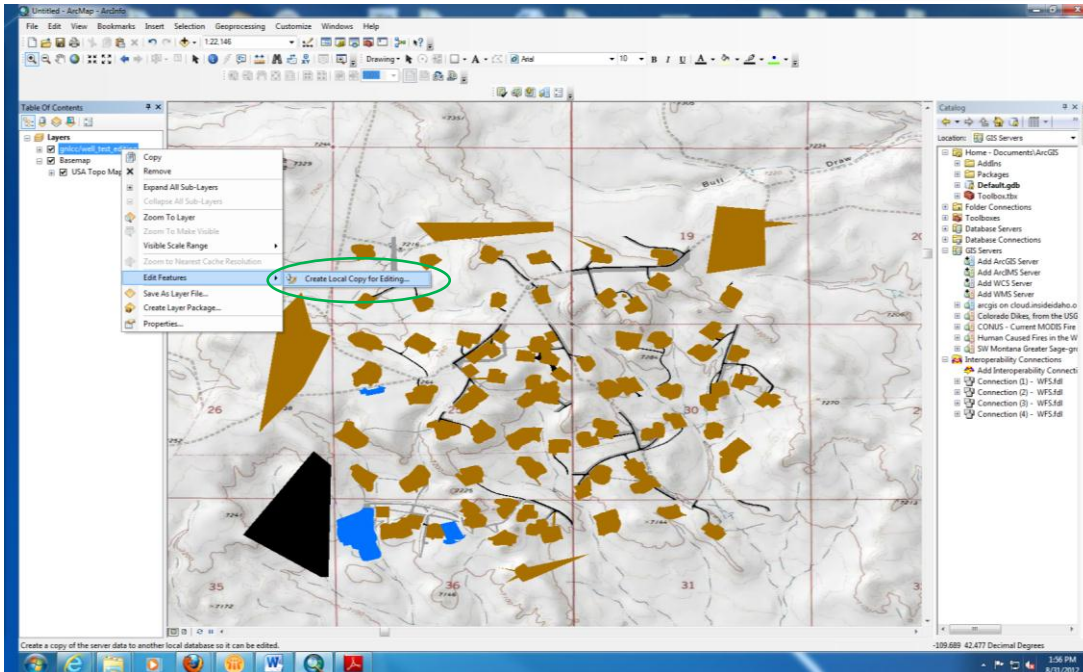
ScienceBase will now appear in the list of GIS Servers. Double click to view contents.



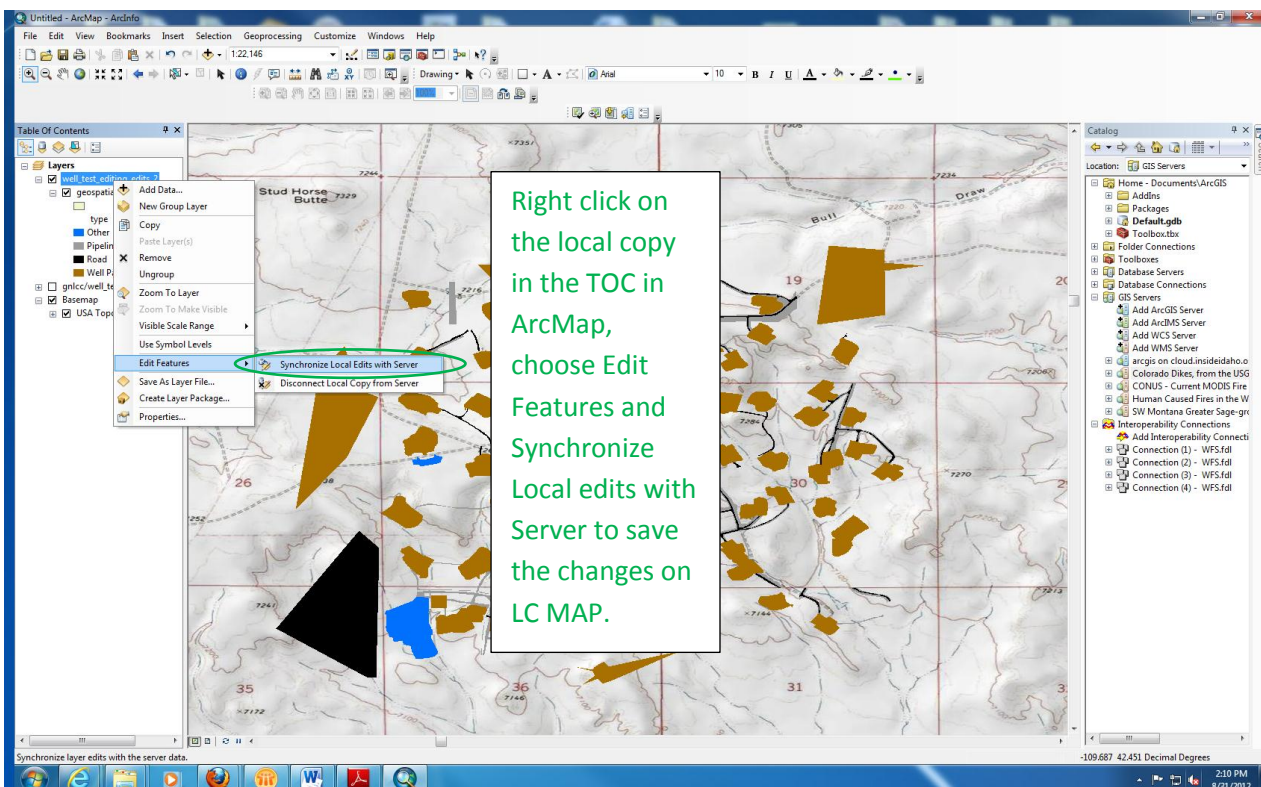
Navigate to your group's folder to find your data. Select the desired layer and click **Add**.



The GIS service data will show up as a layer in the Table of Contents. Right click the layer name, choose **Edit**, **Create a Local Copy for Editing** to make changes.



The local copy will be at the top of the Table of Contents. The user can choose to Disconnect the local copy from the server to work on it as a freestanding data set or make changes and edits on the local copy that will be synchronized back to the server.



The latest version will be stored on the server if the user chooses to synchronize edits. In this way, multiple users at remote locations can access the most up to date version of a shared dataset.

